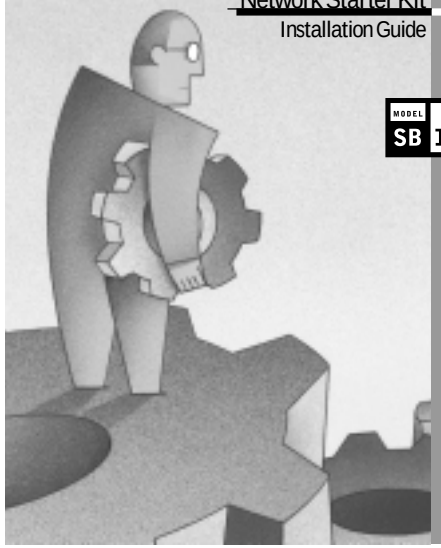
NETGEAR™

Network Starter Kit
Installation Guide

MODEL SB 104



NETGEAR™

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www.NETGEAR.com

Support Information

See Support Information Card for phone numbers.

Internet / World Wide Web

Go to http://www.NETGEAR.com for the NETGEAR Web page.
Defective or damaged merchandise can be returned to your point-of-sale representative.

IMPORTANT!

Please register online. YOU MUST REGISTER TO OBTAIN TECHNICAL SUPPORT. PLEASE RETAIN PROOF OF PURCHASE and this warranty information. To get product support, or to obtain product information and NETGEAR product documentation, direct your Web browser to the **http://www.NETGEAR.com** Web page.

To register online, direct your Web browser to the **http://www.gearguy.com/pub/registration** Web page. If you do not have access to the World Wide Web, you can complete the enclosed registration card and mail it to NETGEAR customer service.

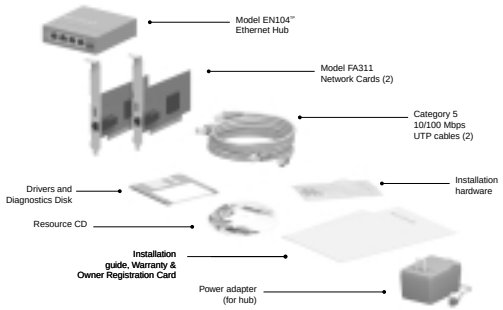
August 2000

START HERE

This kit includes everything you need to network two Pentium PCs running Windows® 95 or Windows 98, and to share Internet access, files, printers, CDs, and applications. The kit is expandable for additional users, and can be upgraded to 100 megabits per second (Mbps). The same network cards, desktop software, and cables are used when upgrading to 100 Mbps; only the hub has to be changed.

These five easy steps...

1. Verify Package Contents
2. Install the Hub
3. Install a Network Card in Each PC
4. Connect the Network Cables
5. Install the Windows Network Driver



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VERIFY PACKAGE CONTENTS

Verify PC Requirements

The instructions given in this guide are for using the NETGEAR™ Model FA311 Network Card in a PC that has a Microsoft Windows 95 or Windows 98 operating system. You must have a PC with:

- Windows 95 or Windows 98
- An available PCI expansion slot

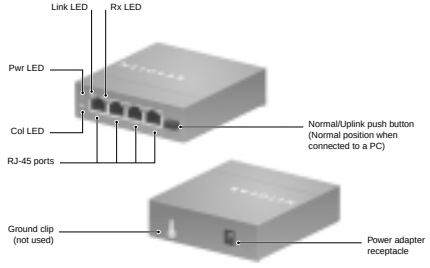
INSTALL THE HUB

1. Set the hub on a flat surface or mount it on a wall and choose a location that:
   - Is close to an electrical outlet.
   - Exposes the front and rear panels to allow connection of the network cables and easy monitoring of the LEDs.
   - Places the hub and PCs close enough to connect the network cables.

   To install the hub on a wall, measure the distance between the mounting holes at the back of the hub and mark the wall to match the location of the mounting holes. Drill pilot holes at the two marked locations on the wall and screw two 5/16-inch diameter flathead screws (provided) into the wall so that the screws protrude 1/18 inch to 3/16 inch. Slide the hub down onto the screws.
2. Turn on power to the hub by connecting the power adapter.
3. Verify that the Pwr (power) LED is on.

   If the Pwr LED is not on, the hub is defective and should be returned to your point-of-sale representative.
4. Make sure that the Normal/Uplink push button is set to Normal.

   The push button is set to Uplink only if the port 4 is connected to another hub for expansion purposes.



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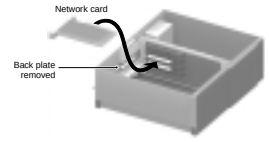
INSTALL A NETWORK CARD IN EACH PC

Note: Touch a grounded metal object to free yourself of static electricity before you handle the network card.

1. Turn the power off and unplug the power cord from your computer.
2. Remove the PC cover.
3. Choose an available PCI slot (PCI slots are the shorter slots) and remove the corresponding back plate from the PC chassis.
4. Insert the network card into the PCI expansion slot.

Caution: To avoid damaging any components on the network card, handle it by the edges, using your thumbs to push it securely into the PCI slot. Make sure the network card is fully inserted into the slot to prevent the PC operating system from freezing at startup.

5. Fasten the network card to the rear of the computer chassis by tightening the screw that is on the PC.



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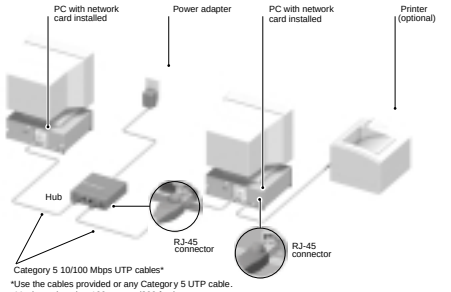
6. Replace the PC cover and reconnect the power cord to the PC.

CONNECT THE NETWORK CABLES

Using the unshielded twisted pair (UTP) cables that are supplied, connect any port on the hub to the



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port on a network card in each PC.

Trademarks

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Microsoft, Windows, and Windows NT are registered trademarks of Microsoft Corporation.

All other trademarks and registered trademarks are the property of their respective owners.

Statement of Conditions

In the interest of improving internal design, operational function, and/or reliability, NETGEAR reserves the right to make changes to the products described in this document without notice.

NETGEAR does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

Certificate of the Manufacturer/Importer

It is hereby certified that the Model FA311 PCI Adapter and the Model EN104™ Ethernet Hub have been suppressed in accordance with the conditions set out in the BMPT-AmtsblVfg 243/1991 and Vfg 46/1992. The operation of some equipment (for example, test transmitters) in accordance with the regulations may, however, be subject to certain restrictions. Please refer to the notes in

the operating instructions.

Federal Office for Telecommunications Approvals has been notified of the placing of this equipment on the market and has been granted the right to test the series for compliance with the regulations.

Voluntary Control Council for Interference (VCCI) Statement (for the Model EN104™ Ethernet Hub)

This equipment is in the first category (information equipment to be used in commercial and/or industrial areas) and conforms to the standards set by the Voluntary Control Council for Interference by Data Processing Equipment and Electronic Office Machines that are aimed at preventing radio interference in commercial and/or industrial areas.

Consequently, when this equipment is used in a residential area or in an adjacent area thereto, radio interference may be caused to equipment such as radios and TV receivers.

Federal Communications Commission (FCC) Compliance Notice:

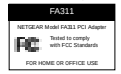
Radio Frequency Notice (for the Model EN104™ Ethernet Hub)

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to take whatever measures may be necessary to correct the interference at their own expense.

Federal Communications Commission (FCC) Compliance Notice: (for the Model FA311 PCI Adapter)

Note: Modifications to this device change it from the original state it was in when tested and may alter the device so that it no longer complies with FCC testing limitations for Class B digital devices. According to FCC regulations, the user could be prevented from operating this equipment if it is modified.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, (2) This device must accept any interference received, including interference that may cause undesired operation.



Note: The Model FA311 PCI Adapter has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

EN 55 022 Statement (for the Model EN104™ Ethernet Hub)

This is to certify that the Model EN104™ Ethernet Hub is shielded against the generation of radio interference in accordance with the application of Council Directive 89/336/EEC, Article 4a. Conformity is declared by the application of EN 55 022 Class A (CISPR 22).

Warning: This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take appropriate measures.

EN 55 022 Statement (for the Model FA311 PCI Adapter)

This is to certify that the Model FA311 PCI Adapter is shielded against the generation of radio interference in accordance with the application of Council Directive 89/336/EEC, Article 4a. Conformity is declared by the application of EN 55 022 Class B (CISPR 22).

INSTALL THE WINDOWS 98 DRIVERS

This guide provides instructions for installing the Windows 98 network driver. Since all versions of Windows may not respond similarly, your computer screen may display different information, in a different order, than pictured in the following instructions. This procedure works for the FA311.

Note: You must install the network card (instructions on the other side of this guide) before installing the network driver.

You need to have the Windows 98 CD-ROM disc and the Model FA311 Drivers and Diagnostics floppy disk ready to use in the installation process.

Note: If the "Insert Disk" window opens and a message prompts you to insert your disk at any time during the installation process, insert the Windows CD in Drive D (the CD drive) and click on "OK." Then follow the next step in the instructions.

1. Turn on the power to the computer and start Windows. The new Hardware is found.

2. In the first "Add New Hardware Wizard" dialog box that indicates a PCI Ethernet Controller is found, click on "Next."

3. Select "Search for the best driver…" Click on "Next."

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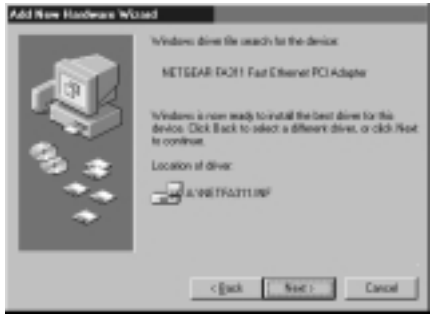
4. Select "Floppy disk drives" and insert the NETGEAR FA311 Fast Ethernet PCI Adapter Drivers and Diagnostics disk into the floppy drive. Click on "Next."

5. Click on "Next" in the Update Device Driver Wizard.



6. When the "Network" window opens, enter a name (a different one-word name for each computer) in the "Computer name" entry field; enter a workgroup name (the name of your entire network) in the "Workgroup" entry field. Click on "OK."

7. When asked to insert the NETGEAR FA311 Fast Ethernet PCI Adapter Drivers disk, click on "OK."

8. Type A:\ in the "Copy files from" entry field and click on "OK."
   The system copies the files from the driver diskette.

9. Make sure the Windows 98 CD-ROM disk is in the system, and click on "OK" when prompted.

10. Make sure the designated path to the Windows 98 CD-ROM is displayed in the "copy files from" prompt line (for example, D:\WIN98).

11. In the "Update Device Driver Wizard" dialog box, click on "Finish."

12. Remove the NETGEAR FA311 Drivers and Diagnostics disk and the Windows 98 CD-ROM. When asked if you want to restart your computer, click on "Yes."

    You must restart your computer to complete the installation of the driver.

VERIFY INSTALLATION

1. Double-click on "My Computer" on the desktop.

2. Double-click on "Control Panel."

3. Double-click on "System."

4. Click on "Device Manager."

5. Double-click on "Network adapters."

6. If there is a problem with the installation of the driver, an exclamation point appears next to "NETGEAR FA311 Fast Ethernet PCI Adapter." If there is an exclamation point, double-click on "NETGEAR FA311 Fast Ethernet PCI Adapter." The "Properties" window opens, and a message regarding the status of the device is displayed in the window. Continue to click on "OK" or click on the "X" in the right-hand corner to close any open windows and return to the Windows desktop.

INSTALL THE NETWORK SHARING SOFTWARE

1. Insert your Resource CD into the CD drive and type the following at the prompt:
   RUN CD:\SETUP.EXE
   where "CD" is the CD drive letter.
2. Follow the steps shown onscreen to complete the installation process.
   After completing installation, you can now connect to your network.

REPLACEMENT POWER ADAPTER

If, for any reason, the power adapter for any of the hubs fails, please contact NETGEAR immediately to order a replacement adapter. Use the following table when ordering a specific power adapter.

Order Code	EN104TP
PWR-024-001	Power adapter (7.5 V DC, 1 A), North America
PWR-024-002	Power adapter (7.5 V DC, 1 A), Europe
PWR-024-003	Power adapter (7.5 V DC, 1 A), United Kingdom
PWR-024-004	Power adapter (7.5 V DC, 1 A), Australia
PWR-024-005	Power adapter (7.5 V DC, 1 A), Japan

TECHNICAL SPECIFICATION

	Model FA311 Network Card	Model EN104TP Ethernet Hub
Software Compatibility	NetWare tested and approved Microsoft Windows 95, Windows 98, Windows NT® compatible	
Standards Compatibility	IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3i 10BASE-T Ethernet, Autosensing PCI Plug-and-Play 2.2 compatible	IEEE 802.3i 10BASE-T Ethernet
Network Interface	RJ-45 for 10BASE-T or 100BASE-TX	5 RJ-45 connectors for 10BASE-T
Power		
Power consumption	3 W	7.5 W
DC operating voltage	+5V +/- 5% @ 630 mA maximum	7.5 V @ 1 A maximum
Physical Specifications		
Dimensions	5.7 by 3.7 in. 14.4 by 9.3 cm	4.6 x 3.1 x 1.2 in. 118 x 78 x 29 mm
Weight	0.20 lb (90 g)	1.25 lb (.6 kg)
Environmental Specifications		
Operating temperature	0 to 40°C	
Operating humidity	10 to 90% noncondensing	
Agency Compliance	CE Mark, commercial, C-Tick FCC, Part 15, Class B EN 55 022 (CISPR 22), Class B Canada ICES-003, Class B	CE Mark, commercial, C-Tick FCC, Part 15, Class A EN 55 022 (CISPR 22), Class A VCCI Class A
Safety Approvals	CE Mark, commercial	CE Mark UL Listed cUL Listed TUV licensed T-Mark
Warranty Information	Limited lifetime	5 years

HARDWARE WARRANTY

Subject to the provisions described below, the components in this NETGEAR product kit are protected from defects in material and workmanship as follows:

The network cards and cables are protected by a limited lifetime warranty, the hub or switch is protected by a 5-year warranty, and the power supply or AC adapter is protected by a 1-year warranty.

Should a product fail to perform as described above within the first year following the original date of purchase, NETGEAR will ship a replacement for the failed product upon return of the defective product.

Products that fail after the first year following the original date of purchase will be repaired or replaced with the same or functionally equivalent, product by NETGEAR, at its discretion, free of charge provided you (1) have, within 30 days of the original date of purchase, completed and returned the Owner Registration Cards which accompanied the products when shipped, (2) return the failed product to NETGEAR designated repair facility with shipping charge prepaid, and (3) provide NETGEAR with proof of the original date of purchase. Repaired or replacement products will be returned to you with shipping charges prepaid.

Replacement products may be refurbished or contain refurbished materials. If NETGEAR, by its sole determination, is unable to repair or replace the defective product, it will refund the depreciated purchase price of the product.

This warranty does not apply if, in the judgement of NETGEAR, the product fails due to damage from shipment, handling, storage, accident, abuse or misuse, or if it has been used or maintained in a manner not conforming to product manual instructions, has been modified in any way, or has had any serial number removed or defaced. Repair by anyone other than NETGEAR or an approved agent will void this warranty. The maximum liability of NETGEAR under this warranty is limited to the purchase price of the product covered by the warranty.

Prior to returning any defective product, the end customer or the reseller from whom the end customer originally purchased the product must obtain a Return Materials Authorization (RMA) number from NETGEAR. All defective products should be returned to NETGEAR with shipping charges prepaid. NETGEAR will not accept collect shipments.

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